

# yumeng ma

HUMAN-COMPUTER INTERACTION (HCI) · HUMAN-AI INTERACTION · ACCESSIBILITY · VISUAL & SOCIAL COMPUTING

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## Education

### University of Washington

Seattle, WA

PHD IN COMPUTER SCIENCE AND ENGINEERING (HCI)

2024 - Present

Advisor: Jacob O. Wobbrock

### Brown University

Providence, RI

SC.M IN COMPUTER SCIENCE

2022 - 2024

GPA: 4.0 / 4.0

Advisor: Jeff Huang

### Arizona State University

Tempe, AZ

B.S. IN COMPUTER SCIENCE AND PSYCHOLOGY

2019 - 2022

Barrett Honors College

GPA: 4.0 / 4.0 Summa Cum Laude

Thesis: "Assessing Exhibit Interaction through Bridging the Connections Between Biometrics and Traditional Tools"

## Publications

\* *equal contribution*

### CONFERENCE PROCEEDINGS

Zainab Iftikhar, **Yumeng Ma**, and Jeff Huang. 2023. "Together but not together": Evaluating Typing Indicators for Interaction-Rich Communication. In Proceedings of the 2023 Conference on Human Factors in Computing Systems (CHI '23). *Paper*

Ian Gonsher, **Yumeng Ma**, Ivan Pineda-Dominguez, Matthew Lee, and Yuxin. 2023. The Mixed Reality Passthrough Window: Rethinking the Laptop Videoconferencing Experience. Human Interaction and Emerging Technologies (IHET-AI 2023): Artificial Intelligence and Future Applications. *Paper*

### SHORT PAPERS & EXTENDED ABSTRACTS

**Yumeng Ma\*** and Jiahao Ren\*. 2023. ProactiveAgent: Personalized Context-Aware Reminder System. In The 36th Annual ACM Symposium on User Interface Software and Technology (UIST '23 Adjunct). *Paper*

## Research Experience

### UW ACE Lab

Seattle, WA

GRADUATE RESEARCH ASSISTANT, ADVISED BY PROF. JACOB WOB BROCK

2024 - Present

- I research and craft interactive social and visual systems that enhance user experience and accessibility. My work goes beyond design to explore the scientific and conceptual depth behind these systems. I challenge existing perspectives and rethink how we evaluate and understand interaction and perception.

### Brown Department of Neuroscience

Providence, RI

COMPUTER VISION RESEARCH ASSISTANT, ADVISED BY PROF. MICHAEL PARADISO

2023 - 2024

- Built a visual prosthesis system for blind and low vision users to locate everyday objects and identify surrounding text.

### UCLA HCI Lab

Los Angeles, CA

HCI RESEARCH INTERN, ADVISED BY PROF. XIANG 'ANTHONY' CHEN

2023

- Led the development of a proactive reminder system that takes in user context, history, and spoken interactions by leveraging LLMs and personal agents.

## Brown Department of Engineering

Providence, RI

### DESIGN RESEARCH ASSISTANT, ADVISED BY PROF. IAN GONSHER

2022 - 2023

- Introduced a new paradigm for the integration of AR into laptop and desktop displays to enable local users to interact more easily and seamlessly with remote users during videoconferencing sessions.

## Brown HCI Lab

Providence, RI

### DISTRIBUTED RESEARCH EXPERIENCES FOR UNDERGRADUATES, ADVISED BY PROF. JEFF HUANG

2022

- Designed novel typing indicators and found that they enhance user co-presence in written communication through mixed method analysis.

## ASU SoLET Lab

Tempe, AZ

### PSYCHOLOGY RESEARCH ASSISTANT, ADVISED BY DR. DANIELLE MCNAMARA

2022

- Conducted testing and evaluation of tutoring systems to optimize learning and educational practices for underrepresented groups.

## NASA Psyche Mission

Tempe, AZ

### HCI RESEARCH ASSISTANT, ADVISED BY PROF. MARIA ELENA CHAVEZ ECHEGARAY

2021-2022

- Developed a web app that allows users to interact with the Psyche Spacecraft model and led user studies with biometric data analysis that showed the app increased public engagement.

## Work Experience

### Infosys

Remote

#### UI/UX DESIGN INTERN, LIVING LABS TEAM

2024

- Spearheaded the design of an accessible phygital UI that integrate emerging AI trends to optimize retail experiences for diverse user personas.

### Brown + NASA

Providence, RI

#### MOBILE DEVELOPER

2023 - 2024

- Led and developed a sound and haptic-enabled cross-platform mobile app to help blind and low vision individuals explore and learn about space.

### Civillience

Remote

#### PROJECT MANAGEMENT & UI/UX DESIGN INTERN | LIAISON BETWEEN FRONTEND AND UI/UX

2023

- Led the UI/UX team to design a web-based app with interactive health data visualizations and built reusable components for a consistent design system across the product

## Awards, Fellowships, & Grants

2024 NSF Graduate Research Fellowship, NSF

2024 Paul G. Allen School Fellowship, University of Washington

2019 - 2023 Microsoft DisAbility Scholarship, Microsoft

2022 Google CS Research Mentorship Program Fellowship, Google

## Teaching

Spring '22 CSE 365 Information Assurance, TA for Adam Doupe and Tiffany Bao, ASU

## Extracurricular & Work Activities

2021 - Present Member, AccessComputing

2022 - 2024 Master's Representative, Brown University CS Diversity Committee

2023 Student Volunteer, UIST

2020 - 2021 Microsoft Support / Xbox Advocate Contract, Microsoft

Providence, RI

San Francisco, CA

Tempe, AZ

## Skills

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<b>Programming</b>	Python, C/C++, C#, Java, Unix/Linux, ROS, APIs, Git
<b>Web/Mobile</b>	HTML, CSS, Javascript, Typescript, React, React Native, Vue
<b>Game Dev</b>	Unity, OpenGL
<b>Data</b>	Jupyter Notebook, R, MySQL, MATLAB, JSON
<b>Design</b>	UI/UX, Adobe Creative Suite, Figma, Wireframing, Fusion360, Blender